

grumble at Pennant; but it would seem almost certain that explanations must have followed, and with them the discontent ceased. To us Pennant's influence on Gilbert White appears to have been distinctly advantageous, just as that of Barrington was the converse. No one can study Pennant's works without seeing that he was full of great ideas—whether they were original or not does not signify for our present purpose—and they were in the main true,<sup>1</sup> whereas Barrington's views seem to be always based on some prejudice or foregone conclusion, to support which he brought his very considerable forensic power to bear, and in the majority of cases arrived at an erroneous conclusion—take his ingenious argument as to the origin of the turkey, for example—and, though undoubtedly in many respects a benefactor, he was apparently White's evil genius in continually urging his absurd belief in the torpidity of the swallow-kind.

This remark brings us to Mr. Fowler's part of the introduction, in which he tries to account for White's astonishing adhesion to that belief, and his readiness to grasp at any scrap of information which seemed to support it, in spite of his own failure to discover a particle of evidence in its favour, and the fact that he fully accepted migration in the "short-winged birds" while doubting it in those that possessed far superior power of flight. Mr. Fowler's mode of accounting for White's "loyalty to an old delusion" seems hardly adequate, yet we must confess our inability to offer a suggestion that satisfies ourselves. We can hardly think that Aristotle, great as we admit was his authority in the Middle Ages, was responsible for the misconception, or even Olaus Magnus—much less Carew. They only repeated the stories of the vulgar and unreflective, and how Willughby's language on the subject "served to perpetuate the tradition" (as Mr. Fowler maintains it did) is more than we can understand. The whole thing is inexplicable, and is really the one flaw in White's reputation as a reasoning naturalist. Though in his earliest letter to Pennant (printed as No. x.) he frankly says that no account of swallows being found torpid in Hampshire is worth attention, the two instances he immediately cites—on the authority of "a clergyman of an inquisitive turn" and of "another intelligent person," each of them being in his boyhood—must have greatly influenced him. He can hardly be said to have been credulous on the subject. He simply thought that the evidence in favour of torpidity, though not satisfying, was such as ought to be tested, and he would no doubt have been pleased to obtain confirmation of it. In this respect he was like many people in our own day who engage in psychical research. Spirits refuse to come at their call from the vasty deep or boundless space, and search as he might, and did, amid the shrubs of Selborne Hanger or under the roofs of his neighbours' cottages, nor swift nor swallow would show itself.

Taken as a whole, the notes to this edition are very good, and those by Prof. Miall on the geology of the district are most acceptable, for few, if any, of White's recent editors have touched upon that subject. Those by Mr. Fowler on ornithology are for the most part extremely effective, whether culled from his predecessors

<sup>1</sup> The often-quoted case of the herring migration must, of course, be excepted, but therein he was misled by the reports of fishermen whom he trusted.

or added from his own experience, and though he does suggest (p. 35) that the bird "so desultory" in its flight, at which White shot in vain, was a siskin and not a chiff-chaff, and (p. 83) would seem to consider the motion of the redstart's tail open to doubt, we have no such impossible suppositions as are found elsewhere to the effect that White did not know a crow from a rook, or the song of the wryneck from the cry of the pied woodpecker. If the introduction could be but freed from the blemishes we have here noticed, and a few more beside, this edition of the "Natural History and Antiquities of Selborne" might be recommended as one of the most accurate, as it is one of the neatest and most handy.

#### THE ORIGIN OF EUROPEAN PEOPLES.

*The Mediterranean Race: a Study of the Origin of European Peoples.* By G. Sergi. Pp 320; 93 illustrations in the text. The Contemporary Science Series. (London: Walter Scott, 1901.) Price 6s.

THE problem of our origins must always prove an interesting subject for research; speculation has found it only too fertile a prey. At the present state of our knowledge fresh information is being amassed continually, so that the field for speculation is, fortunately, becoming more narrowed. A recent contribution to the problem is from the enthusiastic Italian anthropologist, Prof. G. Sergi, of Rome, who has published in English an entirely new book, based on his "Origine e diffusione della stirpe Mediterranea," 1895. Those who are acquainted with the previous writings of Prof. Sergi will quite know what to expect in this new volume. The familiar arguments and data are reinforced by additional facts, and the author's conclusions are clearly and definitely stated. The following is the position he has adopted in this book, and which we may take as the expression of his matured views.

*Homo Neanderthalensis* is a distinct European species, which includes the Spy type and which originated in Europe in early Quaternary or possibly late Tertiary times. Hitherto it has not been found south of the Alps, and it has not completely disappeared from Europe, but persists in the Baltic, in Friesland and elsewhere.

The Chancelade, Laugerie-Basse, Baumes-Chaude, Cro-Magnon crania constitute a group that extended from the Upper Quaternary into early Neolithic times. The view of Hervé and other French anthropologists is that this was a hyperborean stock that migrated from north to south as far as Africa, but excluding Egypt and the Canary Islands. Sergi shows that all the characteristics of the Chancelade skull are found in typical Mediterranean crania; indeed, he defines it as

"a *Pelasgicus stegoides* of the *Ellipsoides* class, still found to-day in East Africa. Why refer to the Eskimo, a skull to be found so near as the Mediterranean?" (p. 195).

The other cranial types are admittedly quite Mediterranean in character. If Scandinavia was not inhabited before the Neolithic period and northern Europe could not be inhabited by man until after the Glacial epoch, it is not easy to see how the centre and south of Europe could be invaded by a race originating in the north in the Quaternary epoch (p. 199).

The Neolithic dolichocephals, according to Sergi, were a northern migration of a group of *Homo Eurafricana*. This species may be divided into three races :—

“The *African*, with red-brown and black pigmentation ; the *Mediterranean*, of brunet complexion ; a *Nordic* race, of blond skin and hair, blue or grey eyes” (p. 259).

The Hamitic race never invaded Europe. In the late Quaternary epoch immigrations of the Eurafrican species took place from Africa into Europe. On the mainland of northern Europe a distinct differentiation took place so far as stature and pigmentation were concerned, but the cranial and facial forms were practically unaltered, and the Reihengräber type of the Germans and the Viking type of the Scandinavians were evolved. On pp. 252–255 the author discusses the obvious objections to this view. The whole of the Mediterranean basin, western Europe and the British Islands were inhabited by the brunet race.

The problem of the African blonds is fully discussed (pp. 59–83) by Prof. Sergi. After stating the views of various investigators, he says,

“It seems to me impossible to find in the blonds of Africa a racial element from northern Europe. If they had come at so early a period (in the times recorded by the Egyptian monuments) they would have radically modified Libyan civilisation beginning with funeral customs and imposed their own language” (p. 72).

In their “Libyan Notes” (1901), Messrs. D. Randall-Maciver and A. Wilkin state that the Berbers of Algeria are always a white-skinned people, and about ten per cent. are blond or fair-haired. Sergi is satisfied that the differences in colour of hair, skin and eyes between the darker and the lighter people are due to the influence of altitude, as the Atlas chain is the headquarters of the blonds in Morocco, and he regards these mountains as the centre of formation of the blond element in North Africa.

Neither of the European races of the Eurafrican species has anything in common with the so-called Aryan races. Sergi holds that it is an error to maintain that the Germans and the Scandinavians, blond dolichocephals, are Aryans. The Aryans are of Asiatic origin, and constitute a variety of the Eurasiatic species.

The anthropological unity of Europe, existing from the late Quaternary epoch and greatly increased during Neolithic times, was broken, at first peacefully and to but a slight extent, and afterwards violently, by a new species coming from Asia. Even in Neolithic times the advance guard of the wave of migration of the brachycephalic *Homo Eurasica* had penetrated slowly and peacefully into France. But then they began to come in larger and hence more turbulent bodies, and caused many changes. These invaders were savages inferior to the Neolithic Europeans, whose civilisation they in large part destroyed, replunging Europe into barbarism, also introducing the new burial custom of cremation, together with other customs, and transforming the existing languages into their own, which was a flexional language. To-day this new anthropological family, which also constitutes a zoological unit, bears three chief names, indicating three characteristic linguistic groups—Celts, Germans, Slavs. The skull of this species shows four primary forms—

NO. 1659, VOL. 64]

cuboid, cuneiform or sphenoid, spheroid and platycephalic—all corresponding to broad, brachycephalic skulls which contrast with the pentagonal, ellipsoidal, ovoid and arrow-shaped (beloides) cranial varieties of the Eurafrican species.

Wherever the Mediterranean stock established itself it preserved its primitive burial custom of inhumation and the characteristic architecture of the chambered tomb. This varies from the natural and artificial grottoes of the Mediterranean region to nurags, pyramids, dolmens and tumuli. Sergi has previously expressed the opinion that the prehistoric artists of the French caves, who possessed such developed artistic feeling, were the precursors of the historical artists who created the marvellous works of Egypt, Greece and Rome ; but he strongly holds the view that the Mycenaean or Ægean civilisation was largely of Asiatic origin, although he does not subscribe to the theory of Montelius that “the Mycenaean civilisation in Greece is due, not to an influence from another country, but to immigration of a new people.” Sergi believes that the Asiatic immigrants, Pelasgo-Tyrrhenians and possibly others, were not anthropologically foreign to the Mediterranean stock. These, and the inhabitants of the Ægean Islands and the Peloponnesus, already possessed a pre-Mycenaean civilisation in common with the Afro-Mediterranean civilisation, but the new culture was the result of Asiatic influences, probably Mesopotamian and Hittite.

The introduction of bronze into Europe has been a fruitful subject for discussion. Sergi has given up the Celtic theory, and now believes that the importation of bronze was due to the Mediterraneo-Oriental culture.

The use of a script is so ancient that it had already reached definite shape in the Magdalenian epoch, that is to say earlier than the Neolithic times, as is proved by the painted pebbles in the cave of Mas d’Azil in the south of France ; and writing signs were widely diffused in countries peopled by the Mediterranean race in very ancient times. The languages of these peoples were also of Eurafrican origin, corresponding to the languages otherwise called Hamitic.

It is evident that this book bristles with debatable points, and we may look forward to interesting discussions from all quarters, as the intrepid Italian savant does not belong to any one school of Continental thought. Doubtless Prof. Ridgeway, for one, will have something to say to Prof. Sergi when the second volume of his “Early Age of Greece” is published.

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#### A MECHANISM FOR THE TRANSMISSION OF STIMULI IN PLANTS.

*Die Reizleitung und die reizleitenden Strukturen bei den Pflanzen.* Von Dr. B. Nemec. Mit 3 tafeln und 10 abbild. im Text. Pp. 153. (Jena : Verlag von Gustav Fischer, 1901.) Price Mk. 7.

IT has long been known that certain parts of many plants are capable of being irritated by appropriate means, and that the stimulus thus perceived is in some way transmitted through an intervening quiescent region to a spot or zone at which it is translated into a definite motile reaction. But it has also been constantly denied that there exists in plants anything comparable to the